

SIDOROV, M.D.; KUPTSOV, I.T.

Continuous action electric dryer for the drying of reagents and
preparations. Prom. khim. reak. 1 osobo chist. veshch. no.1:32 '63.
(MIRA 17:2)

11.01.77, 11.01.77, 11.01.77.

AKK-3 automatic control system for steam boilers with low
evaporative capacity. Teploenergetika 12 no.2:73-77 F '65.
(MIRA 18:3)

1. Proyektnyy i nauchno-issledovatel'skiy institut "Gipronikel".

SIDOROV, M.I.

Characteristics of modern combustion chambers on ships for
burning mazut. Inform. sbor. TSNIIMG no.44 Tekh. ekspl. mor.
flota no.2:66-71 '59. (MIRA 16:10)

SIDOROV, M.I.

Testing of fuel oil burners on marine steam boilers.
Inform. sbor. TSNIMF no.68. Tekh. ekspl.mor.flota
no.11:23-39 '61. (MIRA 15:9)
(Boilers, Marine) (Oil burners--Testing)

SIDOROV, M.I.

Design of the blading in air nozzles for mazut burners and determination
of the air flow characteristics. Inform. sbor. TSNIIIMF no.69 Tekh.
ekspl. mor. flota no.12:92-102 '61. (MIA 16:3)
(Boilers, Marine) (Oil burners)

Sidorov, M. I.

15
✓ Vat printing dyes. N. P. Batsyn, F. E. Segalevich, T.
A. Melnikova, M. I. Sidorov, and A. N. Terekhov.
U.S.S.R. 166,558, Aug. 23, 1957. Printing dyes are made
from a vat dye, reducing agent, alkali, and thickener. As
thickener, the filtrate of grain and potato lees from alc.
production is used. It is evapd. in vacuo and neutralized
with an alkali. M. Borch

6
HERC

BT

BORUKHSON, Boris Vasil'yevich; SIDOROV, Mikhail Ivanovich; BELYAYEV, N.A.,
ARKHANGEL'SKIY, S.S., ~~redaktor~~; ~~redaktor~~, E.A., tekhnicheskiy
redaktor

[General technology of flax and linen] Obshchaya tekhnologiya l'na.
Moskva, Gos.nauchno-tekhn. izd-vo Ministerstva tekstil'noi promyshl.
SSSR, 1956. 177 p. (MLRA 9:8)
(Linen) (Flax)

Country : USSR

J

Category: Soil Science. Tillage. Reclamation. Erosion.

Abs Jour: RZhBiol., No 10, 1958, No 82144

Author : Sidorov, M.; Lebedev, N.

Inst : -

Title : A System of Treatment of the Soil in Moldavia.

Orig Pub: Zemledeliye i zhivotnovodstvo Moldavi, 1957, No 2,
13-22

Abstract: Consideration is given to the effectiveness of the system of soil treatment applied at the present time in Moldavia under summer crops (barley, millet, corn), under winter (wheat, rye, winter barley) soil of corn, and pre-sowing treatment by fall plowing under summer cultures.

Card : 1/1

J-33

SIDOROV, M.I., kand.sel'skokhozyaystvennykh nauk; VAN'KOVICH, G.N.

Results of a study of main tillage methods used in Moldavia.
Zemledelie 6 no.9:64-68 S '58.

(MIRA 11:9)

1.Kishinevskiy sel'skokhozyaystvennyy institut.
(Moldavia--Flowing) (Grain)

SIDOROV, M. I.

"On the Problem of the Agricultural System in Moldavia.

report presented at the Congress of Biological Research in the Moldavian SSR
16-21 Sept 1957. Moldavian Branch AS USSR organized together with
VASKhNIL,
Vestnik AN BSSR, 1958, Vol. 28, No. 1, p. 125-6. (authr Kosenko, I. Ye.)

BORUKHSON, Boris Vasil'yevich; SIDOROV, Mikhail Ivanovich;
SEREDOKHIN, V.N., retsenzent; SOKOLOVA, V.Ye., red.

[General technology of flax] Obshchaia tekhnologiya l'na.
2. izd. Moskva, Leg. aia industriia, 1964. 254 p.
(MIRA 17:12)

SURNINA, Nina Fedorovna, k~~an~~ tekhn. nauk; NOVIKOV, Aleksandr
Konstantinovich; SIDOROV, M.I. retsenzent; MEN'SHENINA,
V.A., red.

[Equipment and technology for the manufacture of linen
fabrics] Oborudovanie i tekhnologiya l'notkatskogo pro-
izvodstva. Moskva, Legkaia industriia, 1965. 432 p.
(MIRA 18:7)

SIDOROV, M.I., kand. sel'skokhoz. nauk

Crop rotations in Moldavia. Zemledelis 27 no.11:26-31 N '65.

(MIRA 18:10)

1. Zamestitel' predsedatelya Soveta Ministrov Moldavskoy SSR.

^{K.}
SIDOROV, M., polkovnik; TSYMBAL, D., polkovnik

^A
Education of activists should be the main consideration of party
committees. Komm.Voeruzh.Sil 1 no.18:45-49 S '61. (MIRA 14:9)
(Russia—Air force—Political activity)

SIDOROV, M.K., polkovnik

Exactingness. Vest.Vozd.Fl. no.6:14-16 Je '61.
(Military discipline)

(MIRA 14:8)

SIDOROV, Mikhail Mikhailovich; SINYAKOV, Yu.I., red.; TIKHONOVA, I.M.,
tekhn.red.

[We shall master 1600 types of new equipment] Osvoim 1600
obraztsov novogo oborudovaniia. Leningrad, Lenizdat, 1959.
41 p. (MIRA 13:3)

1. Zaveduyushchiy promyshlennym otdelom Leningradskogo obkoma
kommunisticheskoy partii Sovetskogo Soyuza (for Sidorov).
(Leningrad--Industrial equipment--Technological innovations)

VOL'DEK, A.I.; DOMANSKIY, I.I.; DRANNIKOV, V.S.; ZALESSEKIY, A.M.;
KAMENSKIY, M.K.; KANTAN, V.V.; KASHKAROV, G.Ye.; KIZEVETTER, Ye.I.;
KLIMOV, A.H.; KOVALEV, N.H.; KOSTENKO, M.P.; KOSTENKO, M.V.;
NEYMAN, L.R.; PAVLOV, G.M.; RAYDONIK, V.S.; RUTIN, Ya.L.;
SIDOROV, M.M.; SHRAMKOV, Ye.G.

Professor Sergei Vasil'evich Usov, 1905- ; on his 60th birthday.
Elektrichestvo no.11:86 N '65. (MIRA 18:11)

ACC NR: K80013017

SOURCE CODE: UR/0105/65/000/011/0086/0026

AUTHOR: Vol'dek, A. I.; Domanskiy, B. I.; Drannikov, V. S.; Zaleskiy, A. M.;
Kamenskiy, M. K.; Kantan, V. V.; Kashkarov, G. Ye.; Kizevetter, Ye. I.; Klimov, A. N.;
Kovalev, N. N.; Kostenko, M. P.; Kostenko, M. V.; Neyman, L. R.; Pavlov, G. M.;
Ravdonik, V. S.; Ruzin, Ya. L.; Sidorov, M. M.; Shramkov, Ye. G.

ORG: none

TITLE: Professor Sergey Vasil'yevich Usov, on his 60th birthday

SOURCE: Elektrichestvo, no. 11, 1965, 86

TOPIC TAGS: academic personnel, electric engineering personnel, electric power plant

ABSTRACT: The noted Soviet power specialist Professor S. V. USOV, who was 60 years old last September, graduated from the Leningradskiy elektrotekhnicheskiy institut (Leningrad Electrotechnical Institute) in 1930 and then, for the next twenty years, worked for the Lenenergo power system of which he became chief engineer in 1939. During the blockade of Leningrad he was head of the group which in 45 days managed to connect the beleaguered city with the Volkhovskaya hydroelectric station across the frozen Ladoga lake. He also carried out the adaptation of the boilers of the Leningrad thermal power plant to consume the locally available fuel. In 1949 he became professor and head of the Department of Electric Stations.

Cord 1/2

UDC: 621.311.1

L 22429-66

ACC NR: AP6013617

of the Leningradskiy politekhnicheskii institut (Leningrad Polytechnic Institute) in. Kalinin. In addition to his fruitful pedagogical endeavors, he published 50 scientific papers. From 1955 to 1958 he was a deputy director for scientific work. In 1964 he was elected Dean of the Electromechanical Faculty of the Institute. He joined the Party in 1942; from 1943 to 1955 was deputy president of the central board of the NTOEP (Nauchno-tekhnicheskoye obshchestvo energeticheskoy promyshlennosti; Scientific Engineering Society of Power Industries), president of the section of power systems of NTOEP, and member of numerous scientific-engineering councils. For many years he was a member of the editorial board of the journal Elektricheskiye stantsii (Electric Stations). For his contributions in the field of power engineering S. V. USOV was awarded the Order of Lenin, Order of Red Banner of Labor, Order of Red Star, Badge of Distinction, and the medals: "For the Defense of Leningrad" and "For Distinguished Service During the Patriotic War." Orig. art. has: 1 figure. [JPRES]

SUB CODE: 10 / SUBM DATE: none

Card 2/2

SIDOROV, M.N., kand. tekhn. nauk.

Acceleration of primary engines in case of torque loss in
automated electric propeller units. Trudy TSNIIIM no.20:58-69
'58. (12:1)

(Marine engines) (Propellers)

SIDOROV, M.N., kand.tekhn.nauk; YAGOLKIN, V.Ya.

Requirements of diagrams for modern electric propulsion
systems on icebreakers and ships sailing in ice conditions.
Trudy NTO sud.prom. 8 no.5:73-80 '59. (MIRA 13:7)
(Ship propulsion, Electric)
(Ice-breaking vessels)

GLUKHOV, V.K., kand. tekhn. nauk; SIDOROV, M.N., kand. tekhn. nauk,
KOROL'KOV, A.I., inzh.

Programming of the start operations of a 300 Mw. block
with a control computer. Energomashinostroenie 9 no.3:3-6
Mr'63. (MIRA 17:5)

NURMATOV, A.; SIDIKOV, M.S.

Quaternary sediments in the eastern part of central Fergana.
Uzb. geol. zhur. 8 no.4:38-44 '64. (MIRA 18:5)

1. Institut gidrogeologii i inzhenernoy geologii AN UzSSR.

OBLIVAL'NYY, F.A.; LUSHIN, L.A.; SIDOROV, M.T.

Installation of additional bridge walls in the center of the
working channel. Stek.i ker. 18 no.9:36 S '61. (MIRA 14:10)
(Glass furnaces)

OBLIVAL'NYI, F.A.; LUSHIN, L.A.; SIDOROV, M.T.; FEDOROV, M.M.

Replacing the floor under the central part of the treatment
channel. Stek.l ker. 18 no.8:37 Ag '61. (MIRA 14:8)
(Glass furnaces)

SIDOROV, M.; GUROV, S., red.; YAKOVLEVA, Ye., tekhn.red.

[Our seven-year plan] Nasha semiletka. Moskva, Mosk.rabochii,
1959. 226 p. (MIRA 12:10)
(Russia---economic policy)

SIDOROV, N.; ANTONOV, V.; BOROVSKIY, G.; BOCHKO, L.; SOLOV'YEV, M.;
SOLOKHIN, V.; TETERIN, N.; CHISTYAKOV, L.; NENASHEV, V.;
USHATIKOV, N.; NOVICHKOV, A.; YARTSEV, N., red.; KUZNETSOVA, A.,
tekhn. red.

[Technology summons us] Tekhnika zovet. Moskva, Mosk. rabochii,
1961. 194 p. (MIRA 15:2)
(Technological innovations) (Automation)

SIDOROV, N

~~SECRET~~ K.

Former soldiers on virgin lands. Sov.voin 33 no.13.5.56.

(MIRA 19:9)

(Kazakhstan--Labor supply)

SIDOROV, N.

A year of working in a new way. Mast. ugl. 7 no.3:6 Mr '58.
(MIRA 11:3)

1. Litsotrudnik redaktsii gazety "Za kompleksnyu mekhanizatsiyu
shakhty No. 18 imeni Stalina.
(Donets Basin--Coal mines and mining)
(Shift systems)

SIDOROV, N.; STUDNICHKA, Yu.; ARTEM'YEV, P.; YALIMOV, P.; BOYKO, N.;
SEKUNOV, S.; TSYPIN, M.

Effectiveness of the centralisation the accounting and tabulating
machines. Dan.1 kred. 17 no.5:53-59 My '59. (MIRA 12:10)

1. Nachal'nik Gorupravleniya Chernigovskoy oblastnoy kontory Gosbanka (for Sidorov).
 2. Glavnyy bukhgalter Gorupravleniya Chernigovskoy obl. kontory Gosbanka (for Studnichka).
 3. Glavnyy bukhgalter Kamensk-Ural'skogo otdeleniya Gosbanka Sverdlovskoy oblasti (for Artem'yev).
 4. Glavnyy bukhgalter Akmolinskoy oblastnoy kontory Gosbanka (for Yalimov).
 5. Glavnyy bukhgalter Arzhamasskogo otdeleniya Gosbanka Gor'kovskoy oblasti (for Boyko).
 6. Glavnyy bukhgalter Georgiyevskogo otdeleniya Gosbanka Stavropol'skogo kraya (for Sekunov).
 7. Glavnyy bukhgalter Samarkandskoy oblastnoy kontory Gosbanka (for Tsypin).
- (Machine accounting)

ZHULINSKAYA, A.S., zasluzhennyi vrach USSR; SIDOROV, N.A., kand.med.nauk

Use of cortisone in the treatment of eye diseases. Oft.zhur. 15 no.4;
219-222 '60. (MIRA 13:11)

1. Iz glaznogo otdeleniya i laboratorii dorozhnoy bol'nitsy
L'vovskoy zheleznoy dorogi.
(CORTISONE)
(EYE--DISEASES AND DEFECTS)

SIDOROV, N. A.

PA 47/49T35

USSR/Engineering
Peat Production

Jan 49

"Improving the Technology of Hydropeat Production,"
N. A. Sidorov, Engr, 2 pp

"Torf Prom" No 1

Explains method to compare relative efficiencies of
two systems for working peat deposits at Markovo-
Sbornoye.

47/49T35

Disertation: "Synthesis and Sintering of γ -aluminate and an Investigation of Its Properties as a Refractory and Ceramic Material." Cand Tech Sci, Khar'kov Polytechnic Inst, Khar'kov, 1953. Referativnyi Zhurnal--Khimiya, Moscow, No 7, Apr 54.

SO: SUM 284, 26 Nov 1954

SIDOROV, N. A.

Fuel Abstracts
June 1954
Natural Solid Fuels;
winning

①
✓ 4196. PEAT INDUSTRY - COMPLETELY ECONOMIC MACHINES. Sidorov, N.A.
(Mekhan. Trud. tyazhol. Rabot (Mech. arduous Wk), Sept. 1953, 15, 16).

SIDOROV, N.A., glavnyy inzhener.

Modern, economical machines for the peat industry. Mekh.trud.rab. 7 no.9:
15-16 S '53. (MLRA 6:9)

1. Torfopredpriyatiye "Vasil'yevskiy mokh."

(Peat industry)

SIDOROV, N. A., Eng.

Feat Industry

Transporting hydraulic masses over long distances. Torf. prom. 30, No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

SIDOROV, N.A., inzhener; SHCHEPIN, M.I., inzhener; GURILEV, A.M., inzhener;
~~ANDRASHYEVSKIY, A.M., inzhener.~~

Results of the operation of MTU-4 machines in 1953. Torf.prom.31 no.1:
5-9 Ja '54. (MLRA 7:1)

1. Torfopredpriyatiye "Vasil'yevskiy mokh" (for Sidirov). 2. Bakshoyev-
skoye torfopredpriyatiye (for Shchepin). 3. Sitnikovskoye torfopred-
priyatiye (for Gurilev). 4. Orekhovskoye torfopredpriyatiye (for Andraheyev-
skiy).

(Peat industry)

SIDOROV, N.A., inzhener.

New method of stacking hydropest in conveyers. Torf.prom. 31 no.3:
26-27 '54. (MLRA 7:6)

1. Torfopredpriyatiye "Vasil'yevskiy mokh". (Peat industry)

SIDOROV, N.A.

Form of graphite in cast iron treated with rare-earth metals.
Lit. proizv. no.6:22-23 Je '64. (MIRA 18:5)

BELATOV, A.I.; LYKOV, Ye.A.; SIDOROV, N.A.

Preventing annular space gas manifestations; a topic for discussion. Neft. khoz. 42 no.11:20-26 N '64 (MIRA 18:2)

KUGEL', R.V., kand.tekhn.nauk; ANTONOV, A.P., kand.tekhn.nauk; SIDOROV, N.A.,
inzh.

Wear of parts of the running gear of crawler tractors in case of
various soil conditions. Trakt. i sel'khoz mash. no.2:9-12 F '65.
(MIRA 18:4)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny
institut.

SIDOROV, Nikolay Aleksandrovich; BAKULIN, Vladimir Georgiyevich;
KIRICHEK, Filipp Prokhorovich

[Improving the design of deep exploratory boreholes for
oil and gas] Usovershenstvovanie konstruktsii glubokikh
razvedochnykh skvazhin na neft' i gaz. Moskva, Nedra,
1965. 118 p. (MIRA 19:1)

L 4872-56

ACC NR: AP5026565

SOURCE CODE: UR/0286/65/000/019/0128/0128

INVENTOR: Voynich, L. K.; Zaytsev, I. H.; Sidorov, N. A.; Khazey, A. F.

ORG: none

TITLE: Pneumohydraulic shock absorber. Class 63, No. 175401

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 128

TOPIC TAGS: shock absorber, pneumohydraulic shock absorber

ABSTRACT: An Author Certificate has been issued for a pneumohydraulic shock absorber (see Fig. 1) for load-carrying vehicles. The unit contains the following: a primary cylinder filled with a liquid and compressed gas (basic elastic components); a cover mounted on the lower end of the primary cylinder, which serves as the lower shock-absorber support; a casing surrounding the primary cylinder and forming a circular reservoir for collecting the working liquid; a plunger pump driven by shock-absorber oscillations and located inside the primary cylinder; a flow channel connecting a high-pressure cavity with the plunger pump and the reservoir; a back-pressure cylinder concentrically located in the primary cylinder, filled with compressed gas and working liquid, and connected to a circular cavity between the primary and back-pressure cylinders through calibrated holes and a check valve (used for vibration damping); and a cover mounted on the upper end of the back-pressure cylinder and serving as the upper shock-absorber support. To prevent leakage of the working liquid and compressed

Card 1/3

UDC: 629.11.012.82

09010795

L 4872-66

ACC NR: AP5026565

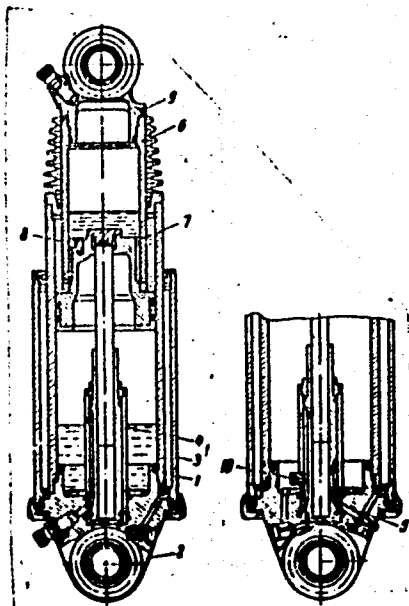


Fig. 1. Pneumohydraulic shock absorber

- 1 - Primary cylinder; 2 - lower cover;
- 3 - casing of reservoir for collecting working liquid; 4 - plunger pump; 5 - flow channel; 6 - back-pressure cylinder;
- 7 - calibrated hole; 8 - check valve;
- 9 - upper cover; 10 - safety valve.

Card 2/3

L 4872-66

ACC NR: AP5026565

gas from the primary cylinder into the reservoir when the shock absorber is extended, the unit is equipped with a valve set for minimum permissible pressure in the primary-cylinder high-pressure cavity. This valve is located in the primary-cylinder cavity and connects it to the working cavity of the plunger pump. Orig. art. has: 1 figure [LB]

SUB CODE: IE / SUBM DATE: 14Jul68/ ATD PRESS: 4/36

Card 3/3

Shishchenko, B. I. Kolov, M. I. ...
GRIGOR'YEV, Vitaliy Ivanovich; SIDOROV, Nikolay Aleksandrovich; SHISHCHENKO,
R.I., prof., doktor tekhn.nauk, red.; PETROVA, Ye.A., inzh., vedushchiy
red.; POLOSINA, A.S., tekhn.rei.

[Controlling deflection of well shafts in turbodrilling] Bor'ba
s iskrivleniem stvolov skvazhii v turbinnom burenii. Pod red.R.I.
Shishchenko. Moskva, Gos.nauchno-tekhn.izd-vo nefi i gorno-toplivnoi
lit-ry, 1957. 87 p. (MIRA 10:12)
(Turbodrills) (Oil well drilling)

11(4)

PHASE I BOOK - EXPLOITATION

SOV/2428

Sidorov, Nikolay Aleksandrovich, and German Antonovich Kovtunov

Oslozhneniya pri burenii skvazhin; preduprezhdeniye, likvidatsiya
(Complications in Well Drilling; Their Prevention and Elimination)
Moscow, Gostoptekhizdat, 1959. 198 p. 4,200 copies printed.

Exec. Ed.: V. V. Isayeva; Tech. Ed.: I. G. Fedotova.

PURPOSE: This book is intended for engineers and technicians
of drilling organizations.

COVERAGE: The book deals with the prevention and elimination of
complications occurring in oil well drilling. Those caused by
caving and contraction of oil well shafts resulting in tool
sticking are described in detail. Causes of gas, petroleum, and
water infiltration as well as the causes of erupting springs
are analyzed. Measures taken to eliminate gushers are outlined.
Suggestions on how to increase the drilling rate and to decrease
the drilling cost are offered. No personalities are mentioned.
There are 47 references: 45 Soviet and 2 English.

Card 1/3

Complications in Well Drilling (Cont.)

TABLE OF CONTENTS:

Introduction	3
Complications Caused by Deficient Construction or Erection of Surface Installations	7
Complications Caused by Suspending Drilling Operation	20
Tool Sticking	23
Drill Pipe Sticking in Boreholes	27
Methods for Eliminating Tool Sticking	40
Sticking Caused by Contraction of the Oil Well Shafts	53
Complications in Sinking and Cementing of Casing	67
Some Complications Caused by the Fluctuation of the Well Hydraulic Pressure	88

Card 2/3

Complications in Well Drilling (Cont.)

Gas, Petroleum and Water Infiltration, Erupting Springs, Interwell Complications, Uncontrolled Gushers	104
Experience in Eliminating Uncontrolled Gushers	137
Caving in Oil Well Drilling	151
Drilling Fluid Absorption	166
Methods Applied in Foreign Countries for Prevention of Drilling Fluid Absorption	183
Complications in Drilling Crooked or Directional Boreholes	186
Bibliography	198

AVAILABLE: Library of Congress

Card 3/3

TM/jb
10-21-59

BRONCH, N. A., Sov. Tech. Sci. -- (also) "Investigation of deformations
and stresses of oil casings at high plastic pressures and temperatures,"
Moscow, 1960, 20 pp (Institute of Geology and Prospecting of Mineral
Resources, Moscow)
(NL, 40-10, 145)

KASUM-ZADE, D.S. (Baku); KULIYEV, S.M. (Baku); SHISHCHENKO, R.I. (Krasnodar),
SIDOROV, N.A. (Krasnodar); SHASHIN, V.D. (Kazan'); KAS'YANOV, V.M.,
(Moskva); GUBENKO, T.P. (L'vov)

Well bottom automatic device for turbodrilling; comments on A.A.
Minin's article published in "Neftianoe khoziaistvo," no.10 1959.
Neft.khoz. 38 no.2:19-22 P '60. (MIRA 13:8)
(Turbodrills)

SIDOROV, N.A.; GRIGOR'YEV, V.I.; ZARNITSKIY, G.E.

Temperatures of casing columns during well exploitation. Trudy
KF VNII no.5:126-137 '61. (MIRA 14:10)
(Oil well casing)

GRIGOR'YEV, V.I.; SIDOROV, N.A.

Strain and resistance of casing columns subjected to excessive
internal pressure. Trudy KF VNII no.5:193-200 '61. (MIRA 14:10)
(Oil well casing) (Strains and stresses

ANISIMOV, A.M.; KARAYEV, A.K.; SIDOROV, N.A.

Drilling wells in gas condensate fields of the Kuban. Neft. khoz.
39 no.11:6-10 N '61. (MIRA 14:12)
(Kuran--Oil well drilling)

BULATOV, A.I.; KARAYEV, A.K.; KARMANOV, I.A.; SIDOROV, N.A.

Using cement slurries of the reduced specific gravity
in fields of Krasnodar Territory. Neft. khoz. 40
no.5:21-25 My '62. (MIRA 15:9)
(Krasnodar Territory well cementing)

ROSHCHUPKIN, Igor' Georgiyevich, dots.; ANAN'IN, Gleb Pavlovich,
dots.; ARSLANOV, Nikolay Konstantinovich, dots. Prinsipialni
uchastnye: KOLONCHUK, V.M., inzh.; SIDOROV, N.A., inzh.;
POL'ZIKOV, I.N., dots.; KORZH, G.V., kand. tekhn. nauk;
BARANOV, A.I., otv. red.; OKHRIMENKO, V.A., red. izd-va;
SABITOV, A., tekhn. red.

[Working mineral deposits] Razrabotka mestorozhdenii po-
leznykh iskopaemykh. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po gornomu delu, 1962. 590 p. (MIRA 15:4)
(Mining engineering)

KOVTUNOV, G.A.; SIDOROV, N.A.

Generalization of some problems of deep drilling practices
in the Kuban. Trudy KF VNII no.9:3-11 '62. (MIRA 15:9)
(Kuban—Oil well drilling)

RESCORP, L.L.; SEPEN, K.A.; ALLEN, Y.M., R.R.

Concerning the nature of the rotation and bending of the base
of a drilling string. Reft. Khos. 42 no.13:11-19 D 164
(MIRA 18:2)

SIDOROV, N.A., red.; BULATOV, A.I., red.

[Improving oil and gas well drilling] Sovershenstvovanie
burenia neftiannykh i gazovykh skvazhin. Moskva, Nedra,
1965. 222 p. (MIRA 18:7)

Sidorov, N.A.

Investigation of the kinetics of the synthesis of gahnite in the solid phase. S. KALINARSKI AND N. A. SIDOROV. *Ukrain. Khim. Zhur.*, 21 [5] 502-00 (1955).--Synthesis of gahnite from highly dispersed ZnO and Al_2O_3 proceeds in the solid phase rather intensively, and at 1100° to 1200°C. it proceeds quantitatively in 3 to 4 hr. The introduction of a double excess of alumina increases the rate of reaction; a double excess of ZnO increases it still further. During the initial period of heating, the kinetics are affected by the reaction between the ZnO vapors and the alumina grains; subsequently, the rate of the reaction is determined by the diffusion of the ZnO through the layer of gahnite in the solid phase. The constants of the reaction, calculated in accordance with the Zhuravlev equation (*Ceram. Abstr.*, 1949, March, p. 02d) are subject to the equation $K = C \times e^{-E/RT}$. The energy of activation, q , increases as the ratio of ZnO: Al_2O_3 changes in the order of 2:1 → 1:2 → 1:1. B.Z.K.

Khar'kov Polytech. Inst. im V. I. Lenin.

SIDOROV, N.A.

KAYNARSKIY, I.S.; SIDOROV, N.A.

Effect of dispersity and activity of solid phases on kinetics of solid-phase reactions. Zhur. prikl. khim. 29 no.12:1785-1792 D (MLBA 10:6) '56.

1. Khar'kovskiy politekhnicheskii institut imeni V.I. Lenina.
(Solutions, Solid) (Chemical reactions--Mechanism)
(Zinc oxide) (Aluminum oxides)

131-1-5/14

AUTHORS: *Sidorov, N.A.* Kaynarskiy, I. S., Sidorov, N. A.

TITLE: Ganite and Its Refractory Properties (Ganit i yego ognepornyye svoystva)

PERIODICAL: Ogneupory, 1958,²³ Nr 1, pp. 19 - 23 (USSR)

ABSTRACT: Among the interesting refractory materials are various spinels, in their number the zinc-aluminiferous spinel-ganite with a melting temperature of about 1950°C. Its synthesis was investigated in detail and does not represent any difficulties, it quantitatively takes place at comparatively low temperatures of 1200°C. Test samples of two types were produced: some of a layer of 75 % ganite-fireclay and 25 % synthetic ganite, others of 25 % ganite-fireclay and 75 % synthetic ganite. The test samples were pressed under a pressure of 1000 kg/cm² and burned at 1550°C for 4 hours and possessed a porosity of 9 - 10 %, as well as a spatial shrinkage of 20 %. The refractoriness of ganite (according to GOST 4069-48) was determined by means of pyrosopes formed of it. A destruction of the test samples was not observed (table 1). In case that the sintering is improved at the expense of a more intensive burning, no deformation occurs at 1700°C (table 2). Table 3 shows the thermal stability of the ganite samples. The tested oxides (see

Card 1/2

131-1-5/14

Ganite and Its Refractory Properties

table 4) may, after their action upon ganite, be divided into two groups: NiO , CoO and MgO - which do not destroy ganite, as well as SiO_2 , MnO_2 , PbO , CaO and $\text{Fe}_2\text{O}_3 + \text{FeO}$ (scale) which act destructively. The resistance of ganite to the influence of slags is given in table 5. Conclusions: well-sintered ganite endures a load of 2 kg/cm^2 at 1700°C ; ganite can be used in an oxidation atmosphere up to a temperature of 1500°C ; it may also serve as lining of electric furnaces; it can be used for melting Al , Zn , Pb and Sn . With a resistance to pressure of $8000 - 8500 \text{ kg/cm}^2$, bending strength of $450-550 \text{ kg/cm}^2$ and a Rockwell hardness of $55 - 85 \text{ CR}$, ganite can be used as base in the strength test of refractory materials at high temperatures. There are 5 tables, and 5 references 4 of which are Slavic, and 1 English.

ASSOCIATION: Polytechnic Institute imeni V. I. Lenin, Khar'kov
(Khar'kovskiy politekhnicheskii institut im. V. I. Lenina)

AVAILABLE: Library of Congress

1. Refractory materials-Properties

Card 2/2

GRIGOR'YEV, V.I.; SIDOROV, N.A.

Determining the permissible internal pressure in casings.
Neft. khoz. 41 no.2:25-29 F '63. (MIRA 17:8)

LIVSHITS, B.G.; SIDOROV, N.A.

Heat stability of carbides and form of the graphite in heat
treated cerium cast iron. Lit.proizv. no.7:24-26 J1 '64.
(MIRA 18:4)

CHUGUNOV, Yu.D.; FLINT, V.Ye.; MAL'TSEV, M.I.; KATKOV, V.M.; SIDOROV, N.F.

Experiment in mapping the habitat of the greater gerbil within
the foci of cutaneous leishmaniasis in southern Turkmenistan.
Vop.kraev.paraz.Turk.SSR 3:157-160 '62. (MIRA 16:4)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamaleya,
Moskva i Okruzhnoy gosspital' pograniichnykh voysk Turkmenskogo
okruga.

(TURKMENISTAN--GERBILS AS CARRIERS OF DISEASE)
(TURKMENISTAN--DELHI BOIL)

SIDOROV, N. G.

232T21

USSR/Chemistry - Alkylation

Sep 52

"Cycloalkylation of Aromatic Compounds. V. Synthesis of Trans-1-methyl-4-phenylcyclohexane,"
N. G. Sidorov, A. D. Grebenyuk

"Zhur Obshch Khim" Vol 22, No 9, pp 1550-1552

Hydrogenation of 4-methyl-1-phenylcyclohexene at 180° in the presence of Raney Ni results in the formation of the trans isomer of 1-methyl-4-phenylcyclohexane. The acetoamino and benzamino derivs of trans-1-methyl-4-phenylcyclohexane were obtained.

232T21

SIDOROV, N.G.

NAUMOV, V.I.; SIDOROV, N.G.; SAKHAROV, V.K. [deceased]; VELETSKIY, G.A.,
inzhener, retsenzent; KARATYEV, V.N., inzhener, retsenzent; NAZAROV,
D.M., inzhener, retsenzent; TSVETNIKOV, V.I., kandidat tekhnicheskikh
nauk, redaktor; KOCHUROV, N.I., inzhener, redaktor; FETISOV, F.I.,
inzhener, redaktor; SOKOLOVA, L.V., tekhnicheskii redaktor

[Operation, technical maintenance and repair of automobiles; reference
materials] Eksploatatsiya, tekhnicheskoe obsluzhivanie i remont avto-
mobilei; spravochnye materialy. Izd. 2-e, perer. i dop. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 495 p. [Microfilm]
(Automobiles) (MIRA 8:4)

NAUMOV, V.I.; SIDOROV, N.G.; SAKHAROV, V.K. [deceased];
BELETSKIY, G.A., inzh., retserzent

[Operation, maintenance and repair of motor vehicles; a
handbook] Ekspluatatsiia, tekhnicheskoe obsluzhivanie i
remont avtomobilei; spravocnoe posobie. Moskva, Mashinostroenie, 1965. 510 p. (MIRA 18:8)

NAUMOV, Vasilii Ivanovich; SIDOROV, Nikolay Grigor'yevich; SAKHAROV, Vladimir Konstantinovich [deceased]; BELETSKIY, G.A., inzh., retsentsent; KARATNYEV, V.N., inzh., retsentsent; NAZAROV, D.M., inzh., retsentsent; KOCHUROV, N.I., dotsent, kand.tekhn.nauk, red.; TSVETNIKOV, V.I., dotsent, kand.tekhn.nauk; GOFMAN, Ye.K., red. izd-va; SOKOLOVA, V.L., tekhn-red.

[Operation, technical maintenance, and repair of automobiles; reference materials] Eksploataatsia, tekhnicheskoe obsluzhivanie i remont avtomobilei; spravochnye materialy. Izd.3, perer. i dop. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1959. 447 p. (Automobiles) (MIRA 12:5)

Sept. 16. 1866.

137-1957-12-24028

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 161 (USSR)

AUTHOR: Sidorov, N. G.

TITLE: Procedure to Improve the Quality of Silumin Chill Castings
(Praktika povysheniya kachestva kokil'nogo siluminovogo lit'ya)

PERIODICAL: V sb. : Novoye v liteyn. proiz-ve. Nr 2. Gor'kiy, Knigoizdat, 1957, pp 279-285

ABSTRACT: The chill-casting of machine elements from the alloy AL-2 is discussed. Optimal density and machinability is attained when the Si content is 9.5-11.5 percent. The dies and cores of the chill mold are painted with a paint containing 60 g Zn oxide, 25 g water glass and 1 liter of water. All moving parts of the chill mold are lubricated with a graphite paste consisting of 95 percent mineral oil and 5 percent graphite. Described are measures against spoilage in the casting of a pressure-tight, thin-walled housing: a system of ventilation channels increased pouring temperatures up to 740-780°, the selection of appropriate clearances between moving parts, etc.

Card 1/1

M. Z.

1. Aluminum alloys-Casting

LEBEDEV, P.A.; SIDOROV, N.G.

Studying the interaction between a crawler tractor and the ground
in turns. Trakt. i sel'khozmas'h. no.3:7-10 Mr '65.

(MIRA 18:5)

S. DEROV N. I.
VOLKOV, V.V.; VOROTNIKOV, P.Ye.; KOLTY'IN, Ye.A.; SIDOROV, N.I.; YAN'KOV, G.B.

Study of the D-D reaction in the 0.20 to 1.75 Mev deuteron energy
range. Atom energ. suppl. no. 5:15-25 '57. (MIRA 11:2)
(Nuclear reactions)

SIGOROV, N. I. (Vet.)

"Practical methods of elimination of aspiration of the lungs in slaughter animals."

SO: Veterinariya 23 (12), 1951, p. 39

SIDOROV, N.I.

USSR/ Physics - Accelerated-ion generator

Card 1/1 Pub. 22 - 14/52

Authors : Baev, B. V.; Vorotnikov, P. M.; Gokhberg, B. M.; Sidorov, N. I.;
 Shuf, A. V.; and Yon'kov, G. B.

Title : A high-voltage electrostatic generator in a compressed gas

Periodical : Dok. AN SSSR 101/4, 637-639, Apr 1, 1955

Abstract : A description of a high-voltage electrostatic generator of the Van de
 Graaf type is presented. The generator is operated at a gas mixture
 (nitrogen and CO₂) compressed up to 8 atmospheres, and it supplies 2.8 Mv
 energy. Due to a good focusing device, a narrow (1 mm) beam of ions with
 80 mu a current can be obtained at the out-put of the generator. Two
 USSR references (1955). Diagram.

Institution : Acad. of Sc., USSR, S. I. Vavilov Inst. of Physical Problems

Presented by: Academician A. P. Alexandroff, November 17, 1954

MATVEYEV, Arkadiy Arkad'yevich; BORISOV, Dmitriy Mikhaylovich;
BARANOVSKIY, M.A., nauchn. red.; SIDOROV, N.I., nauchn.
red.; KOBZINSKAYA, N.V., red.

[Mechanical drawing] Chercherie. 4. perer. i dop. izd.
Moskva, Vysshaya shkola, 1964. 311 p. (MIRA 18:2)

BELYAYEV, Iger' Aleksandrovich; SIDOROV, N.I., inzhener, redaktor; KANDYKIN, A. Ye., tekhnicheskiy redaktor.

[Progressive methods of maintaining contact circuits] Peredovye metody tekushchego soderzhanii kontaktnoi seti. Moskva, Gos. transp. shel-dor. izd-vo, 1955. 47 p. (MIRA 9:6)
(Electric railroads--Wires and wiring)

OSIPOV, Sergey Ivanovich; MIRONOV, Konstantin Aleksandrovich; SHIRYAYEV, A.P.,
inzh., red.; SIDOROV, N.I., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Principles of electric traction] Osnovy elektricheskoi tiagi.
Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 342 p. (MIRA 10:12)
(Electric railroads)

MEDEL', Vladimir Borisovich, professor, doktor tekhnicheskikh nauk;
~~SIDOROV, M.I.~~, inzhener, redaktor; ROMANOV, I.M., inzhener,
redaktor; VERINA, G.P., tekhnicheskii redaktor

[Rolling stock of electric railroads] Podviznoi sostav elektriche-
skikh zheleznykh dorog. Izd.2-oe, perer. Moskva, Gos.transp.zhel-
dor. izd-vo. Vol.1. [Construction and dynamics] Konstruktsiia i
dinamika. 1957. 343 p. (MLRA 10:9)
(Electric railroads--Rolling stock)

BRUBER, Leonid Osipovich; PERTSOVSKIY, Lazar' Moiseyevich; TROFIMOV,
Valentin Ivanovich; PRUDYUS, A.S., inzhener, redaktor; SIDOROV,
N.I., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Installation, operation and repair of electric traction substations]
Ustroistvo, ekspluatatsiya i remont tiagovykh podstantsii. Izd.2-oe,
dop. i ispr. Moskva, Gos.transp.mel-dor.izd-vo, 1957. 465 p.
(Electric railroads--Substations) (MLRA 10:9)

YENOKHOVICH, Anatoliy Sergeyevich; SIDOROV, N.I., red.; LAUT, V.G.,
tekh.red.

[Excursions to observe power units serving agriculture;
a manual for the physics teacher] Ekskursii k energeti-
cheskim ustanovkam sel'skokhoziaistvennogo proizvodstva;
posobie dlia uchitelja fiziki. Moskva, Izd-vo Akad.pedagog.
nauk RSFSR. 1958. 119 p. (MIRA 12:4)
(Agricultural machinery) (School excursions)

BELYAYEV, V.A., kand.tekhn.nauk; KABENIN, N.G., kand.tekhn.nauk; KONOVALOV, V.P., inzh.; LUGININ, N.G., kand.tekhn.nauk; MIROMENKO, N.P., kand.tekhn.nauk; SIDOROV, N.I., inzh., red.; KHITROV, P.A., tekhn. red.

[Analysis of the system and organization of electric and diesel locomotive repair] Analiz sistemy i organizatsii remonta electrevezov i tellevezov. Moskva. Gos.transp. zhel-der. izd-vo. 1958. 206 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no. 155). (MIRA 11:8)
(Locomotives—Maintenance and repairs)

REZNIKOV, Leonid Isaakovich; MYENCHIK, Esfir' Yefimovna; YUS'KOVICH, Vasilii Fomich; ZNAMENSKIY, P.A., prof., retsentsent; SAKHAROV, D.I., dotsent, retsentsent; BIUDOV, M.I., retsentsent; YENOKHOVICH, A.S., starshiy nauchnyy sotrudnik, retsentsent; YAVORSKIY, B.M., prof., doktor fiz.-matem.nauk, red.; SIDOROV, M.I., red.; LAUT, V.G., tekhn.red.

[Methods of teaching physics in secondary schools] Metodika преподаvaniia fiziki v srednei shkole. Pod red. B.M.Iavorskogo. Moskva, Izd-vo Akad.pedagog.nauk RSFSR. Vol.1. [Mechanics] Mekhanika. 1958. 286 p. (MIRA 12:9)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Znamenskiy).
(Mechanics--Study and teaching)

SIDOROV, Nikolay Ivanovich; PRUDYUS, Anatoliy Semenovich; SHIRYAYEV,
A.P.; inzh., red.; VERINA, G.P., tekhn.red.

[How the electric locomotive is constructed and how it operates]
Kak ustroen i rabotaet elektrovoz. Moskva, Gos.transp.shel-dor.
izd-vo, 1959. 238 p. (MIRA 13:2)
(Electric locomotives)

VLASOV, Ivan Ivanovich, doktor tekhn.nauk; PORSHNEV, Boris Georgiyevich, inzh.; FRAYFEL'D, Aleksandr Vladimirovich, kand.tekhn.nauk: Prini-
mal' uchastiye: GOROSHKOV, Yu.I., kand.tekhn.nauk; BARANOVA, M.A.,
inzh., MAZURSKIY, E.M., inzh., retsenzent; SIDOROV, N.I., inzh.,
red.; VERINA, G.P., tekhn.red.

[Designing the contact network of electric railroads] Proekti-
rovanie kontaktnoi seti elektrifitsirovannykh zheleznykh dorog.
Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 299 p. (MIRA 12:10)
(Electric railroads--Wires and wiring)

RYSHKOVSKIY, Isaak Yakovlevich, kand.tekhn.nauk, dotsent; ZASORIN,
Sergey Nikolayevich, kand.tekhn.nauk, dotsent; ZAGAYNOV, N.A.,
kand.tekhn.nauk, dotsent, retsenzent; MESSEMAN, S.M., kand.
tekhn.nauk, dotsent, retsenzent; SIDOROV, N.I., inzh., red.;
VERINA, G.P., tekhn.red.

[Electric stations and traction substations] Elektricheskie
stantsii i tiagovye podstantsii. Moskva, Gos.transp.shel-dor.
izd-vo, 1959. 343 p. (MIRA 12:12)
(Electric power plants) (Electric substations)

REZNIKOV, Leonid Isaakovich; EVENCHIK, Esfir' Yefimovna; YUS'KOVICH, Vasil'y Fomich; IAVORSKIY, B.M., prof., doktor fiz.-matem. nauk, red.; SIDOROV, M.I., red.; KOPTEKOVA, L.A., red.; LAUT, V.G., tekhn.red.

[Methods of teaching physics in secondary schools] Metodika pre-podavaniia fiziki v srednei shkole. Pod red. B.M.Iavorskogo. Moskva, Izd-vo Akad.pedagog.nauk RSFSR. Vol.2. [Mechanics (continuation), molecular physics and heat] Mekhanika (prodolzhenie), molekuliarnaia fizika i teplota. 1960. 405 p.

(MIRA 13:7)

(Physics--Study and teaching)

BATALOV, Nikolay Mikhaylovich; PETROV, Boris Petrovich; BARSKIY, M.R.,
kand. tekhn.nauk, retsenzent; KRICHKO, A.I., inzh., retsen-
zent; STEPANOV, A.D., doktor tekhn. nauk, retsenzent;
SIDOROV, N.I., inzh., red.; LARIONOV, G.Ye., tekhn. red.

[Electric traction machinery] Tiagovye elektricheskie apparaty.
Moskva, Gos. energ. izd-vo, 1961. 207 p. (MIRA 15:3)
(Electric machinery) (Electric railroads)

SHATSILLO, Anton Adamovich; RESHETOV, L.M., doktor tekhn. nauk, retsen-
zent; SIDOROV, N.I., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Traction drives of electric rolling stock] Tiagovyi privod elektropod-
vizhnogo sostava. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va pu-
tei soobshchenia, 1961. 221 p. (MIRA 14:12)
(Electric railway motors)

VETROV, Nikolay Ivanovich; BORZENKO, Ye.A., inzh., retsenzents;
SIDOROV, N.I., inzh., red.; BOMROVA, Ye.N., tekhn. red.

[Operation and repair of overhead d.c. contact systems]
Ekspluatatsiia i remont kontaktnoi seti postoiannogo toka.
Moskva, Transzheldorizdat, 1967. 166 p. (MIRA 15:9)
(Electric railroads—Maintenance and repair)
(Electric lines—Overhead)

KUCHMA, Kalinik Georgiyevich, kand. tekhn. nauk; PROKHORSKIY,
Aleksandr Alekseyevich, inzh.; BENESHEVICH, I.I., kand.
tekhn. nauk, retsenzent; SIDOROV, N.I., inzh., red.;
BOBROVA, Ye.N., tekhn. red.

[Electric power plants and substations]Elektricheskie stan-
tsii i podstantsii. Moskva, Transzheldorizdat, 1962. 531 p.
(MIRA 15:9)

(Electric railroads—Current supply)

(Electric power distribution

(Electric power plants)

STUKALKIN, Andrey Nikolayevich; SMIRNOV, Aleksandr Ivanovich; SIDOROV,
N.I., inzh., red.; BOBKOVA, Ye.N., tekhn. red.

[Pantographs for electric locomotives] Pantografy elektriche-
skikh lokomotivov. Moskva, Transzheldorizdat, 1962. 77 p.
(MIRA 15:9)

(Electric locomotives)

MININ, Gleb Petrovich; SIDOROV, N.I., red.; BUL'DYAYEV, N.A.,
tekhn. red.

[Megohmmeter] Megommetr. Moskva, Gosenergoizdat, 1963.
46 p. (Biblioteka elektromontera, no.86) (MIRA 16:6)
(Ohmmeter)

ZUB, K.Ya.; BOCHAROV, V.I.; KHASAY, V.P., inzh.; KOPTSOV, N.S.;
KODINTSEV, I.; STANISLAVCHUK, P.E.; POROKHIN, Ye.;
SIDOROV, N.I., inzh. red.; USENKO, L.A., tekhn. red.

[The VL60 electric locomotive] Elektrovoz VL60; instruktsion-
naya kniga. Moskva, Transzheldorizdat, 1963. 250 p.
(MIRA 16:8)

1. Novocherkasskiy elektrovostoitel'nyy zavod.
(Electric locomotives)

KAMYSHEV, Aleksandr Georgiyevich; SIDOROV, N.I., red.; FRIDKIN,
L.M., tekhn. red.

[Freight and passenger elevators; electrical equipment]
Gruzovye i passazhirskie lifty. Elektrooborudovanie. Mo-
skva, Gosenergoizdat, 1963. 63 p. (Biblioteka elektro-
montera, no.94) (MIRA 16:8)
(Elevators--Electric equipment)

SIDOROV, N.I., inzh.

Recommended technical literature for electric railroad workers.
Elek. i tepl. tiaga 7 no. 4:46 Ap '63.

(MIRA 16:5)

(Bibliography--Electric railroads)

SIDOROV, Nikolay Ivanovich, inzh.; PRUDYUS, Anatoliy Semenovich,
inzh.; KHRAKOVSKIY, Ye.M., red.

[Layout and operation of an electric locomotive] Kak
ustroen i rabotaet elektrovoz. Izd.2., perer. 1 dop.
Moskva, Transport, 1964. 235 p. (MIRA 17:12)

MURZIN, L.G.; SIDOROV, N.I., red.; AYBASHEVA, T.V., red.

[Electric power economy in electric railroad rolling stock] Ekonomiya elektricheskoi energii na elektropodvizhnom sostave. Moskva, Transport, 1964. 58 p.
(MIRA 17:10)

1. Nachal'nik otdela teplotekhniki Glavnogo upravleniya lokomotivnogo khozyaystva Ministerstva putey soobshcheniya (for Murzin).

SIDOROV, N.I.; SIDOROVA, Ye.I. (Moskva)

Tar-phenol ointment in treating some dermatoses. Vest. derm. i ven.
38 no.9:44-46 S '64. (MIRA 18:4)